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On April 1, 2009, AHS brought together 12 formerly separate health entities in the province: nine geographically based health authorities (Chinook Health, Palliser Health Region, Calgary Health Region, David Thompson Health Region, East Central Health, Capital Health, Aspen Regional Health, Peace Country Health and Northern Lights Health Region) and three provincial entities working specifically in the areas of mental health (Alberta Mental Health Board), addiction (Alberta Alcohol and Drug Abuse Commission) and cancer (Alberta Cancer Board).



# Windows of Opportunity

A statistical profile of substance  
use among women in their  
childbearing years in Alberta

EXECUTIVE SUMMARY

August 2004

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## Executive Summary

The use of alcohol, tobacco and street drugs by women is gaining increased attention in Canada. In the past, substance use was more often viewed as an issue for men; consequently, specific substance use patterns and treatment needs of women were often overlooked. Research, program planning and policy development are increasingly guided by considerations of sex (biological) differences in addiction and substance use, and by gender (social) influences on issues of substance use and treatment potential.

Substance use during pregnancy can have long-term effects on children—including developmental delays, learning and behavioural difficulties, and lifelong disabilities. The most commonly known harmful effect is fetal alcohol spectrum disorder (FASD). Substance use also affects the woman herself through increased risk of various acute and chronic illnesses, and safety concerns related to intoxication. Women who use substances may also be experiencing other health issues and problems. These include mental health issues and experiences of violence. Substance use can also contribute to social and legal problems for women (particularly mothers), such as family breakdown or child apprehension.

In this report, we present a statistical profile of substance use patterns among Alberta women of childbearing years (ages 18 to 44). In most cases, data are analyzed by sex, pregnancy status, age, and household income. Where data permit, there are comparisons to British Columbia and Canada. We present additional statistics on issues that could inform substance abuse prevention, treatment and policies. These include treatment choices, barriers, motivators to reduce or quit during pregnancy, lifestyle changes before and during pregnancy, planned and unplanned pregnancies, community attitudes toward women and substance use, and awareness and attitudes of FASD. The main data source is the 2001 Canadian Community Health Survey. Other sources include Alberta reproductive health studies, perinatal databases and public opinion research. The report also includes some United States data on selected issues such as drinking patterns of young adults.

Note: Except where otherwise noted, information in this summary is from analysis of data from the Canadian Community Health Survey 2001 (CCHS, Cycle 1.1) and is limited to ages 18 to 44.<sup>4</sup> Many of the CCHS questions use a 12-month time frame. Women who were pregnant at the time of the survey were only pregnant for a portion of that time frame. Thus, reported rates of substance use among pregnant women may be higher than if the question had focused more narrowly on substance use *during* the pregnancy.

## Alcohol Use

### Drinking Prevalence and Frequency

CCHS respondents were asked about their drinking behaviour over the past 12 months.

- Among adults 18 to 44 years of age in Alberta, 79.9% of women reported drinking within the past 12 months, versus 89.3% of men.
- Of Alberta women who were pregnant at the time of the survey, 69.3% reported drinking within the past 12 months, versus 80.4% of women who were not pregnant.
- Only 2.3% of Alberta women who were pregnant at the time of the survey reported drinking in the week before the survey, versus 52.3% of Alberta women who were not pregnant.
- At around 31%, women in both the youngest (18 to 20) and oldest (31 to 44) age groups were more likely than the two age groups in between to drink one to six times per week (24% to 26%). Twenty-six- to 44-year-olds were most likely to report daily drinking, though the percentages were small (2% to 3%). The pattern of more frequent drinking among younger and older women fits with U.S. research showing more frequent drinking among both early college-age women and older women.
- Alberta women in the poorest households (less than \$10,000 per year) were most likely to drink infrequently (less than once per month) (44.2%). Women in the highest income bracket (\$40,000 or more per year) were most likely to drink at least four times a week, though this frequency of drinking was rare (4.6%).
- The percentage of Alberta women who reported drinking during their last pregnancy was 9.2%.
- The percentage of women who drank during their last pregnancy was markedly higher for the two highest income groups (40.5% for \$80,000 or more and 23.1% for \$60,000 to \$79,999). Percentages in the lower income brackets ranged from 0% to 12.7%.

Preliminary data from 2002 shows that 4% of pregnant women used alcohol during their pregnancy, versus 22.1% who used tobacco and 2.2% who used illicit drugs.<sup>2</sup>

### Binge Drinking

Binge drinking is generally defined as five or more drinks on one occasion. CCHS respondents were asked about their binge drinking behaviour *over the past 12 months*. Although there is no accepted safe level of drinking during

pregnancy, binge drinking is especially risky in terms of adverse pregnancy outcomes.

- Overall, men are more likely than women to binge drink. In Alberta, men are about twice as likely as women to binge drink once per month or more (39.2% versus 18.1%), and are about three times as likely to binge drink once per week or more (14.6% versus 4.8%).
- One in ten (10.3%) Alberta women who were pregnant at the time of the survey reported binge drinking once per month or more, versus 18.4% of Alberta women who were not pregnant.
- Less than one per cent (0.9%) of Alberta women who were pregnant at the time of the survey reported binge drinking once per week or more, versus 5.0% of Alberta women who were not pregnant.
- Binge drinking occurred most frequently among younger women. Among Alberta women aged 18 to 20, 14.1% reported binge drinking once per week or more, versus 6.2% in the 21 to 25 year age group, and about 3% in each of the two older groups (26 to 30 and 31 to 44 years of age).
- Alberta women in households with an income of less than \$10,000 per year were most likely to binge drink once per week or more (9.2%), versus 5.7% in the \$10,000 to \$19,999 income group, and 4% to 5% in income groups over \$20,000.

## Heavy Drinking

In the CCHS, heavy drinking is defined as having ever regularly consumed more than 12 drinks per week, though “regularly” was not defined in the survey. Heavy drinking is associated with increased risk of adverse pregnancy outcomes.

- Overall, Alberta men are four times more likely than Alberta women to regularly drink more than 12 drinks per *week* (44.2% versus 10.5%).
- Among Alberta women who were pregnant at the time of the survey, 12.1% reported heavy drinking. However, it is not known if this drinking occurred before they became pregnant. There were no clear age or income differences. Of Alberta women who were not pregnant, 10.4% reported heavy drinking.
- No Alberta women who were pregnant at the time of the survey reported drinking more than 12 drinks in the *week* before the survey, versus 4.5% of Alberta women who were not pregnant.

- Some researchers define heavy drinking for women as consuming more than *nine* drinks per week. This lower cut-off is used to account for sex differences in metabolism of alcohol. Less than one per cent (0.8%) of Alberta women who were pregnant at the time of the survey reported having more than nine drinks in the *week* before the survey, versus 8.1% of Alberta women who were not pregnant.

## Impact of Alcohol Use

Those who reported regular drinking in the CCHS were asked questions from an alcohol screening instrument to determine the impact of alcohol on their lives.

- Alberta women who were pregnant at the time of the survey were much more likely to say drinking had interfered with their lives than Alberta women who were not pregnant. For example, 28.1% of women who were pregnant at the time of the survey reported having emotional problems due to alcohol use versus 9.9% of women who were not pregnant.
- Overall, while women were more likely to report that drinking affected their mental health (9.9% for women versus 7.0% for men), men more often reported that drinking affected their risk of physical injury (17.7% for men versus 7.6% for women).
- Of Alberta women who had ever regularly consumed more than 12 drinks per week, 51.7% of those who were pregnant at the time of the survey had reduced or quit drinking because of *pregnancy* versus 13.4% of women who were not pregnant.

## Street Drug Use

According to Alberta Health and Wellness, 1.7% of Alberta women who had a live birth between 1998 and 2000 used street drugs during pregnancy. Women who used street drugs during pregnancy were younger and more likely to have low-birth-weight or preterm babies.<sup>1</sup>

Canadian population health research on street drug use is scarce. Research by the Substance Abuse and Mental Health Services Administration (SAMHSA) in the U.S. shows that 3% of pregnant women aged 15 to 44 used a street drug in the month before the survey. Pregnant women were about half as likely as non-pregnant women to use street drugs. However, among 15- to 17-year-olds, pregnant and non-pregnant women had similar rates of drug use (approximately 13%).<sup>14</sup>

## Smoking

CCHS respondents were asked about their smoking behaviour over the past 12 months.

- The overall smoking rate for Alberta women aged 18 to 44 is 30.3%. For Alberta men of the same age, the rate is 37.4%.
- Alberta women who were pregnant at the time of the survey were roughly half as likely as non-pregnant women to smoke *daily* (13.9% versus 25.2%).
- The highest rates of *daily* smoking among Alberta women were in the two lowest income groups: 36.6% with a household income of less than \$10,000 and 37.3% with a household income of \$10,000 to \$19,999. The relationship between lower incomes and higher smoking rates is more clear-cut than the relationship between income level and alcohol use.

According to Alberta Health and Wellness, 25.7% of Alberta women who had a live birth between 1998 and 2000 reported smoking at some point during their pregnancy. Women who smoked during pregnancy were more likely to have low-birth-weight or preterm babies.<sup>1</sup>

## Related Health and Social Issues

The research team also examined perceptions, health practices, health risks, and use of health-care services by women in Alberta.

- A study undertaken by Environics Research Group in 2000 found that most Canadians are aware of the risks of alcohol use during pregnancy: 98% believe that the more alcohol a pregnant woman drinks, the more likely that the baby will be harmed, and 89% believe that alcohol use during pregnancy can lead to lifelong disabilities in a child. However, men in general, and women who drink more heavily are more likely to believe that alcohol consumption during pregnancy is safe.<sup>5</sup>
- The following are findings from the Canadian Community Health Survey:
  - Alberta women who were not pregnant at the time of the survey (30.1%) and Alberta men (26.1%) were more likely to feel stressed than Alberta women who were pregnant (15.7%).
  - Alberta women who were pregnant at the time of the survey were less likely to say that they needed health care but did not receive it (10.7%) than either Alberta women who were not pregnant (18.2%) or Alberta men (14.4%).

- Depression levels, as indicators of concurrent mental health risk, were identifiable in the survey: Approximately 17% of Alberta women reported moderate or high depression, with little difference between women who were pregnant at the time of the survey and those who were not. Men reported concern with depression less often (10.4%).
- A number of women did not perceive that they would have *practical* support if they really needed it, such as receiving help when they were sick. Over one-sixth of Alberta women who were pregnant at the time of the survey and one-quarter of Alberta women who were not pregnant felt this way.
- The following statistics relate to violence against women:
  - Alberta studies have linked violence against girls and women to their entry into prostitution,<sup>9</sup> to their use of alcohol and other drugs, and to help-seeking behaviour.<sup>12</sup>
  - Violence against women is common during pregnancy. Twenty-one per cent of women in Canada who reported being abused by an intimate partner said they were abused during pregnancy.<sup>13</sup>
- The following are findings of the Canadian Contraception Study, 1998:<sup>7</sup>
  - The use of condoms and birth control pills was almost twice as high among unmarried women than among married women, and condoms were more popular among unmarried teens. Among those who had used condoms, about 60% had also used some other method.
  - Among women presently using oral contraceptives, 35% reported having two or more sexual partners during the past two years.
  - More than a quarter of women believed that having only one partner, or knowing one's partner well, eliminated the need for condoms.
  - Among respondents who had had intercourse in the previous six months, 29% had not used any contraception (only about a third of these women were pregnant or trying to conceive). In general, consistent use of contraception over the previous six months was lower among those with less education.
  - Unmarried women (69%) were more likely to regularly use most forms of contraception than married women (54%). However, during the previous six months, only 60% of 15- to 17-year-old unmarried teens said they always used contraception. Younger women were also more likely to use unreliable contraceptive methods. For example, withdrawal was used by 22% of unmarried 15- to 17-year-olds and 13% of unmarried 18- to 24-year-olds, versus 9% of women overall.

- The 1998 Canadian Campus Survey<sup>8</sup> demonstrated that rates of binge drinking among Canadian students were high; overall, 62.7% reported having five or more drinks at least once during the fall semester (56.1% of women, 70.6% of men). Over one-third (34.8%) reported having eight or more drinks at least once during the same time frame (25.2% of women, 46.5% of men).
- While variable in scope and types of information gathered, information obtained from Alberta and other Canadian and U.S. programs serving high-risk pregnant women demonstrates clearly that the concerns facing these women are considerably more complex than substance use alone. These include sole parenting, children in custody, low income, and a constellation of other health, legal and social problems such as unstable housing, exposure to violence and abuse, justice system involvement, and concurrent physical and mental health problems.<sup>3,6,10,11,15,16</sup>

## Key Findings and Implications

- Substance use by women in their childbearing years is common, and risky drinking patterns, while less common, are found throughout the age and income spectrum. Therefore, routine screening of all women of childbearing age is indicated, and public awareness campaigns should play an important educative role.
- The vast majority of pregnant women do not use alcohol during pregnancy, make efforts to improve their health, and find the support they need. Because women are clearly open to changes in substance use behaviour during pregnancy, this is a brief but excellent opportunity to influence women.
- A profile emerged of groups at higher risk. Because broad public campaigns demonstrate less effectiveness for at-risk groups, targeted campaigns are needed.
- Specific, focused support is needed for those women who present with a constellation of other factors that interact with alcohol to compromise their own and their children's health.
- Information-gathering about substance use has limitations in its current forms and leads to seemingly inconsistent results and underreporting.

## Summary

This report presents a statistical profile of substance use among Alberta women of childbearing years (ages 18 to 44), supplemented by other health-related information that contributes to our understanding of women and substance use. Researchers reviewed data from national surveys/reports and perinatal databases to prepare a profile that compares rates of men with those of pregnant

and non-pregnant women in Alberta, B.C. and Canada. The information presented in this report has implications for policy and practice related to women and substance use across Canada.

A key point reminds us that women already make positive efforts to protect their health and the health of their children, and we are challenged to find ways to enhance this effort. Other findings direct our attention to some important hidden groups (such as women with higher incomes, older and younger women), and to the importance of addressing the social support needs of the women we serve.

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# Windows of Opportunity

A statistical profile of substance use among women in their childbearing years in Alberta

How many women in Alberta use alcohol and other drugs? What are the drinking patterns of Alberta women? How do Alberta women perceive their general health? What do Canadians know about alcohol use during pregnancy?



This report presents a statistical profile of substance use among Alberta women of childbearing years (ages 18-44). Researchers reviewed data from national surveys/reports and perinatal databases to prepare a profile that compares rates of men and pregnant and non-pregnant women in Alberta, BC and Canada. This includes:

- substance use patterns
- motivators to reduce/quit during pregnancy
- pregnancy outcomes related to substance use

- awareness of effects of alcohol use during pregnancy

Other health-related information that contributes to our understanding of women and substance use is also included such as:

- self-perceived health
- social supports
- mental health
- contraceptive practices
- violence against women

The information presented in this report has implications for policy

and practice related to women and substance use across Canada. A key finding reminds us that women already make positive efforts to protect their health and the health of their children and we are challenged to find ways to enhance this trend. Other findings remind us to pay attention to some important hidden groups such as women with higher incomes, older and younger women, and to address the social support needs of the women we serve.

The full report is available on AADAC's website  
[http://corp.aadac.com/for\\_women/the\\_basics\\_about\\_women/](http://corp.aadac.com/for_women/the_basics_about_women/)

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